

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,830	06/23/2003	Rolland N. Little	1217.0002C	9087
27896	7590	02/26/2004	EXAMINER	
EDELL, SHAPIRO, FINNAN & LYTTLE, LLC 1901 RESEARCH BOULEVARD SUITE 400 ROCKVILLE, MD 20850			OLSON, LARS A	
			ART UNIT	PAPER NUMBER
			3617	

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

SL

Office Action Summary	Application No. 10/601,830	Applicant(s) LITTLE, ROLLAND N.	
	Examiner Lars A Olson	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10312003</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16, 18 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by De Leu (US 6,000,353).

De Leu discloses the same pontoon for a watercraft as claimed, as shown in Figure 1, that is comprised of a pontoon, defined as Part #11 or 12, having a forward section with a terminal end, an intermediate section with a flotation centerline, an aft section with a terminal end, and a means for containing at least one battery pack, defined as Part #52, that is secured to said intermediate section of said pontoon. Said terminal end of said aft section also has a rearward and downward taper, as shown in Figure 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Leu in view of Key (US 6,263,826).

De Leu, as set forth above, discloses all of the features claimed except for the use of a battery pack that is mounted on an exterior surface of a pontoon.

Key discloses a pontoon boat, as shown in Figure 1, having a battery pack, defined as Part #45, which is mounted to an exterior surface of a pontoon.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a battery pack that is mounted to an exterior surface of a pontoon, as taught by Key, in combination with the pontoon as disclosed by De Leu for the purpose of providing a means for securing a battery pack to a pontoon that facilitates the installation of said battery pack on said pontoon.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Leu in view of Locke (US 4,991,532).

De Leu, as set forth above, discloses all of the features claimed except for the use of a battery pack containing means that includes an air inlet means and an air outlet means.

Locke discloses a boat engine compartment ventilation system, as shown in Figure 1, that includes a battery pack containing means, defined as Part #12, a battery pack, defined as Part #26, an air inlet means, defined as Part #22, for said containing means, and an air outlet means, defined as Part #20, for said containing means.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a battery pack containing means with an air inlet means

and an air outlet means, as taught by Locke, in combination with the pontoon as disclosed by De Leu for the purpose of providing a ventilation means for a battery pack containing means to prevent the accumulation of fumes within said battery pack containing means.

6. Claims 1, 3, 7-10, 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew (US 5,931,114) in view of Oehler (US 5,016,558) and De Leu.

Bartholomew discloses a solar-powered watercraft, as shown in Figures 1-4, that is comprised of a craft body with a deck, as shown in Figure 2, a canopy, defined as Part #10 in Figure 1, that is secured to said body and disposed over said deck, said canopy further including a means for receiving solar radiation in the form of a solar panel, defined as Part #34, that is mounted to a top face of said canopy, at least one battery pack, as shown by dashed boxes in Figure 2, that is used for powering said watercraft, as described in lines 28-32 of column 3, and a means for transferring energy from said solar panel to said at least one battery pack, as shown by a dashed line in Figure 2.

Bartholomew, as set forth above, discloses all of the features claimed except for the use of at least one pontoon having a centerline of flotation secured in depending relation from a craft body, a battery pack that is secured to said at least one pontoon, and a control console that is secured above a deck.

Oehler discloses a boat with a retractable canopy, as shown in Figures 1-3, said boat being comprised of a craft body with a deck, a canopy, defined as Part #16, with a

headliner, defined as Part #20, that is secured to said craft body and is disposed over said deck, as shown in Figure 2, and a pair of pontoons having a centerline of flotation secured in depending relation from said craft body, as shown in Figures 1 and 2.

De Leu discloses a solar-powered watercraft, as shown in Figures 1 and 2, said watercraft including at least one battery pack, defined as Part #52, that is secured to a pontoon, defined as Part #11 or 12, a means for receiving solar radiation in the form of a solar panel, defined as Part #50, which can be in monocrystalline or polycrystalline form, a means for transferring energy from said solar panel to said battery pack, as shown by a dashed line in Figure 1, and a deck mounted control console, defined as Part #20, to provide control over the recharging of said battery pack by means of said solar panel, as described in lines 2-8 of column 3. Said pontoon has a forward section with a terminal end, an intermediate section with a flotation centerline, and an aft section with a terminal end having a rearward and downward taper, as shown in Figure 1. Said watercraft also has an aft-oriented trim at rest, also as shown in Figure 1, that is indicated by the placement of said battery pack and an electric motor toward the stern of said watercraft.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize at least one pontoon, as taught by Oehler, and at least one battery pack secured to a pontoon, as taught by De Leu, in combination with the solar-powered watercraft as disclosed by Bartholomew for the purpose of providing a pontoon watercraft with a means for collecting and storing solar power in order to provide an auxiliary source of power that does not require the use of a combustible fuel,

and a means for mounting a battery pack on a pontoon in order to provide more stability to said watercraft.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew in view of Oehler and De Leu, and further in view of Key (US 6,263,826).

Bartholomew in combination with the teachings of Oehler and De Leu shows all of the features claimed except for the use of a battery pack that is mounted on an exterior surface of a pontoon.

Key discloses a pontoon watercraft, as shown in Figure 1, with a battery pack, defined as Part #45, which is mounted on an exterior surface of a pontoon.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a battery pack that is mounted on an exterior surface of a pontoon, as taught by Key, in combination with the solar-powered watercraft as disclosed by Bartholomew and the teachings of Oehler and Key for the purpose of providing a means for mounting a battery pack to a pontoon of a watercraft in order to facilitate the installation or removal of said battery pack onto or from said watercraft.

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew in view of Oehler and De Leu, and further in view of Fronek (US 5,725,062).

Bartholomew in combination with the teachings of Oehler and De Leu shows all of the features claimed except for the use of a canopy with a headliner that is disposed parallel to and vertically spaced from a solar panel in order to define a ventilation space

between said solar panel and said headliner, said ventilation space being vented by a fan connected to a thermostatic switch.

Fronek discloses a solar-powered vehicle, as shown in Figure 1, that includes a canopy with a headliner, defined as Part #4, that is disposed parallel to and vertically spaced from a solar panel, defined as Part #1, defining a ventilation space between said headliner and said solar panel, and a fan, defined as Part #12, that can be automatically controlled to circulate cooling air between said solar panel and said headliner, as described in lines 5-14 of column 3.

The examiner takes official notice that the use of a thermostatic switch to control a cooling fan is known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a solar panel that is vertically spaced from a headliner of a canopy, and a fan to provide cooling air between said solar panel and said headliner of said canopy, as taught by Fronek, in combination with the solar-powered watercraft as disclosed by Bartholomew and the teachings of Oehler and De Leu for the purpose of providing a means for ventilating a space between a solar panel and a canopy of a watercraft in order to improve the generating and current-flow efficiency of said solar panel.

9. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew in view of Oehler and De Leu, and further in view of Locke.

Bartholomew in combination with the teachings of Oehler and De Leu shows all of the features claimed except for the use of a battery pack containing means that includes an air inlet means and an air outlet means.

Locke, as cited previously, discloses a boat engine compartment ventilation system, as shown in Figure 1, that includes a battery pack containing means, defined as Part #12, a battery pack, defined as Part #26, an air inlet means, defined as Part #22, for said containing means, and an air outlet means, defined as Part #20, for said containing means. An air ventilation means in the form of a fan, defined as Part #16, is also provided within said containing means, as shown in Figure 1, and is connected in circuit to a thermostatic switch, defined as Part #36.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a battery pack containing means with an air inlet means, an air outlet means, and a ventilation fan, as taught by Locke, in combination with the solar-powered watercraft as disclosed by Bartholomew and the teachings of Oehler and De Leu for the purpose of providing a ventilation means for a battery pack containing means to prevent the accumulation of fumes within said battery pack containing means.

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fronek in view of Bartholomew.

Fronek discloses a method for increasing the charging efficiency of a solar-powered vehicle, as shown in Figure 1, that is comprised of the step of flowing air through a canopy, defined as Part #4, that is secured to said vehicle and includes a headliner that is disposed substantially parallel to and vertically spaced from a solar

Art Unit: 3617

panel, defined as Part #1, to define a ventilation space between said solar panel and said headliner in order to increase the generating and current-flow efficiency of said solar panel by allowing cooling air to pass through said ventilation space, as described in lines 5-14 of column 3.

Fronek, as set forth above, discloses all of the features claimed except for the use of a solar-powered vehicle in the form of a watercraft.

Bartholomew, as previously cited, discloses a solar-powered watercraft that is comprised of a craft body with a deck, as shown in Figure 2, a canopy, defined as Part #10 in Figure 1, that is secured to said body and disposed over said deck, said canopy further including a means for receiving solar radiation in the form of a solar panel, defined as Part #34, that is mounted to a top face of said canopy, at least one battery pack, as shown by dashed boxes in Figure 2, that is used for powering said watercraft, as described in lines 28-32 of column 3, and a means for transferring energy from said solar panel to said at least one battery pack, as shown by a dashed line in Figure 2.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a solar-powered vehicle in the form of a watercraft with a canopy and a solar panel, as taught by Bartholomew, in combination with the method for increasing the charging efficiency of a solar-powered vehicle as disclosed by Fronek for the purpose of providing a method for increasing the power generation capacity of a solar panel mounted to a canopy of a watercraft.

Art Unit: 3617

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (703) 308-9807.

lo

February 24, 2004

LARS A. OLSON
PATENT EXAMINER

Lars Olson
2/24/04